

# What Works Clearinghouse



February 2012

## WWC Quick Review of the Report “An Interaction-Based Approach to Enhancing Secondary School Instruction and Student Achievement”<sup>1</sup>

### What is this study about?

The study examined the effect of a secondary school teacher training and coaching program on student achievement.

Eighty-eight teachers were randomly assigned to either the My Teaching Partner-Secondary (MTP-S) group or the control group. Of these teachers, 76 participated in the study during the intervention year (when they received coaching) and 61 participated in the study during the post-intervention year (when they no longer received coaching).

Data from two student cohorts were analyzed. The first cohort included about 1,300 students of the teachers who participated during the intervention year; the second cohort included about 1,000 students of the teachers who participated during the post-intervention year.

The study measured student achievement using the Commonwealth of Virginia Standards of Learning (SOL) tests, which students took at the end of core subject courses. These tests assessed the effectiveness of the coaching program by comparing the achievement of students of MTP-S teachers with that of students of teachers who received regular in-service training.

### Features of the My Teaching Partner-Secondary Professional Development Program

The My Teaching Partner-Secondary (MTP-S) program, which targets the motivational and instructional abilities of teachers, is designed to improve daily, ongoing teacher–student interactions.

Teachers attend an initial workshop, where consultants define the MTP-S principles and describe the dimensions of high-quality teacher–student interactions.

Approximately twice a month, teachers submit videotaped sessions to a consultant, who identifies a brief segment of the session for review and discussion. Teachers review the identified segment for their own behaviors and for student reactions and then confer with the consultant, who recommends strategies to enhance teacher–student interactions.

*(continued)*

<sup>1</sup>Allen, J., Pianta, R., Gregory, A., Mikami, A., & Lun, J. (2011). An interaction-based approach to enhancing secondary school instruction and student achievement. *Science*, 333, 1034–1037.

Quick reviews examine evidence published in a study (supplemented, if necessary, by information from author queries) to assess whether that study's design meets WWC evidence standards. Quick reviews rely on the effect sizes and significance levels reported by study authors.

The WWC rating applies only to the summarized results, and not necessarily to all results presented in the study.

## What did analyses based on the intervention year find?

Analyses of the intervention year did not find a statistically significant difference in achievement between students of MTP-S teachers and students of control group teachers.

## What did analyses based on the post-intervention year find?

Analyses of the post-intervention year found that achievement among students of MTP-S teachers was significantly higher than among students of control group teachers. The effect size of 0.22 is roughly equivalent to an increase in student achievement from the 50th to the 59th percentile.

However, the WWC has reservations about these results, as unaccounted-for differences between the two groups of students may have existed before the intervention.

### WWC Rating of Analyses Based on the Intervention Year

#### ***The analyses based on the intervention year meet WWC evidence standards***

**Strengths:** The intervention year study was a well-executed randomized controlled trial with low attrition.

### WWC Rating of Analyses Based on the Post-intervention Year

#### ***The analyses based on the post-intervention year meet WWC evidence standards with reservations***

**Strengths:** The post-intervention year study was based on a randomized controlled trial.

**Cautions:** The post-intervention year study had higher attrition among MTP-S teachers than control teachers. Although the study provided evidence that the two groups of students contrasted at the end of the post-intervention year were equivalent on prior achievement, it is possible that other differences existed between the two groups of students that could have influenced achievement and were not accounted for in the analysis.